

Can we travel through time?

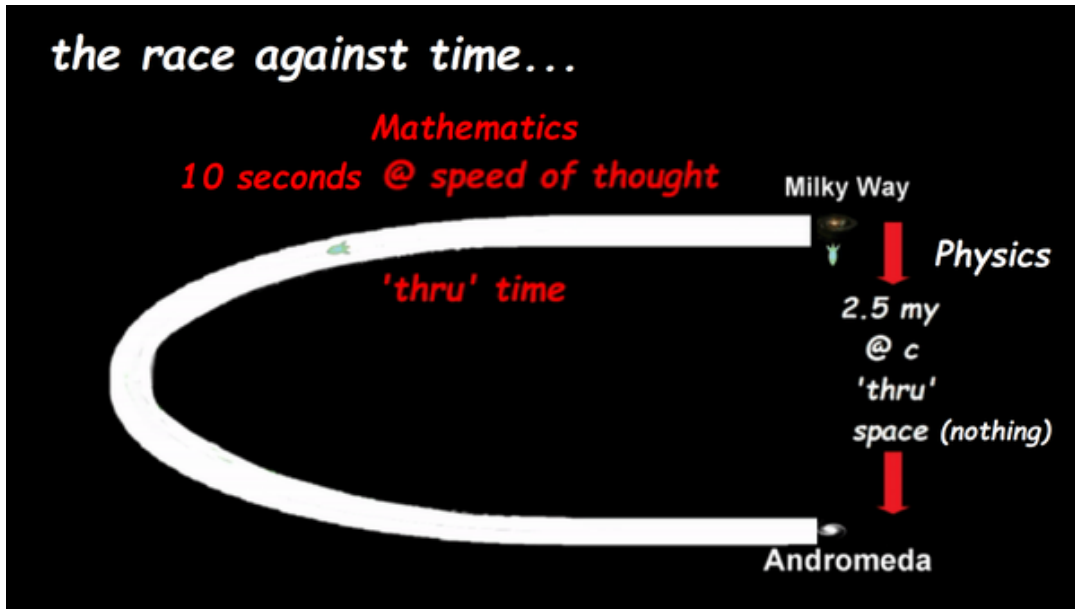
One of the most amusing notions that has sprung out of the minds of amateur physicists who style themselves as mathematical ‘physicist’ in the last 100+ years is that we can travel ‘through’ time. This fantasy started gaining popularity in the 1880s, with novels that depicted time travel. In H.G. Well’s *The Time Machine*, the traveler discovers how the world will be in the future. In Mark Twain’s *A Connecticut Yankee in King Arthur’s Court*, the most fascinating attraction of time travel is born: applying ‘modern’ technology and knowhow to the past. The mathematicians of those early days – Lorentz, Poincaré, Minkowski, Einstein, etc. – would end up playing around with fire and morphing Well’s fourth time ‘dimension’ into a ‘scientific’ reality for the masses.

Today, here we are, [on the last stretch of Man’s existence on Earth](#), and most people not only [fantasize about colonizing other planets](#), but casually take time-travel for a fact. The common man simply reasons that it has been proven by the ‘scientists’, and surely all those PhDs can’t all be THAT ‘wrong’, can they? Popularization outlets and flashy Hollywood movies periodically reinforce this false sense of intellectual security.

So for those few folk who still have their feet on the ground, let’s see if we can even imagine this time ‘tunnel’, this medium through which we can travel gazillions of times faster than through space. I mean, in Physics, space is a synonym of *nothing*: that which doesn’t have shape. Space is an antonym of *something*: that which has shape. Applying these definitions consistently, rationally... scientifically, it would seem that we would find the least resistance, the minimum amount of friction, traveling through nothing than if we traveled through something. How can you travel through anything that is a medium faster than through that which is not? By what physical mechanism (other than fantasy)?

Hence, here are a couple of questions a rational individual may want to ponder:

1. WHAT is this ‘thingy’ called *time*? Is it a tunnel of sorts? If so, what encapsulates the tunnel? What medium provides shape and contour to this tunnel? What’s on the outside of it?
2. What medium fills this tunnel that makes it so fast, so much faster, that we can travel to the past, to the future, and to the Andromeda Galaxy in a matter of seconds while the person who does it through the nothingness of space, traveling at near- c (c = the speed of light), would reach there in over two million years? Space should be much thicker than molasses compared to time.
3. If a direct, straight line journey to the Andromeda Galaxy takes over two million years traveling at near- c , how *curved* is the itinerary through the ‘dimension’ of time? What is it about the shape of the time tunnel that makes the trip gazillions of times faster than through space?



The rational individual, those individuals who still have their feet on the ground, should leave all equations aside and focus merely on the qualitative physical aspects of the question at hand. Math can talk about infinities. Physics can't. Math can talk about short-circuiting space by going through the 'dimension' of time. Physics can't. And Math can call *time* a dimension. In Physics, we recognize that the amateur 'physicist' is struggling to understand the basics of the discipline. The disoriented mathematician has clearly ventured beyond his abilities and is juggling abstractions. For the purposes of genuine Physics, time is no more than a number line. Try traveling 'through' that! At whatever speed you want!